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ABSTRACT

This report documents trends in youth gun violence and the response within the justice system, noting the growing variety of data resources available to investigate the effect of new gun laws on youth, communities, and public safety. The first section reviews recent trends, examining the major wave of gun violence in the United States during the past 20 years. This section highlights changes in the juvenile justice system, increases in violent crime during the 1980s and 1990s, decreases in violent crime during the mid-to-late 1990s, juvenile versus youth crime, and assessment of reforms. The second section discusses research strategies and information sources, explaining that laws simply restricting access to firearms by certain designated groups while allowing others relatively unencumbered access to firearms appear unlikely to reduce gun crime. Gun laws based on a deterrence model have shown some evidence of success, but their impact depends greatly upon the quality and consistency of their implementation. This section also discusses legislation and policy (limitations on access, offender sanctions, extra-legal measures, and critical questions). It describes promising programs and interventions and existing data sources (law enforcement data, court data, survey data, and firearm injury and tracing data). (Contains 42 references.) (SM)

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RESEARCH REPORT January 2002

Youth, Guns, and the Juvenile Justice System

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Recent Trends
An analysis of statistical trends and policy changes in juvenile justice, including patterns in juvenile arrests, juvenile gun homicides, court cases related to gun violence, and changes in law and statutes.

Information Sources
An assessment of the information sources available for developing a research agenda on youth gun violence and its impact on the juvenile justice system.

Prepared for The Joyce Foundation

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Youth in the cover photograph are models and are used for illustrative purposes only.

Designed by David Williams

PROGRAM ON
youth justice

This report was developed by the Urban Institute's Program on Youth Justice, which identifies and evaluates strategies for reducing youth crime, enhancing youth development, and strengthening communities.

The Program on Youth Justice was established by the Urban Institute in 2002 to help policymakers and community leaders develop and test more effective, research-based strategies for combating youth crime and encouraging positive youth development.

Researchers associated with the Program on Youth Justice work to transcend traditional approaches to youth justice research by:

- studying all youth, not just those legally defined as juveniles;
- considering outcomes for families, organizations, and communities as well as individuals;
- sharing insights across the justice system, including prevention programs, police, courts, corrections, and community organizations; and
- drawing upon the expertise of multiple disciplines, including the social and behavioral sciences as well as professional fields such as medicine, public health, policy studies, and the law.

The Program on Youth Justice (Dr. Jeffrey A. Butts, Director) is housed within the Justice Policy Center (Dr. Adele V. Harrell, Director).

For questions and to receive email updates on the research activities of the Program on Youth Justice, send an email to JPC@ui.urban.org

Juvenile Justice Terms

		Adult Analogy
Adjudication	Judicial finding that a juvenile accused of a delinquent act actually committed the act.	Conviction
Detention	Holding a youth in a secure facility, under court authority, usually temporarily to await a juvenile court hearing.	Jail
Disposition	Sanctions or services ordered by a juvenile court (or agreed upon informally) for the purposes of correcting a youth's illegal behavior or holding a youth accountable for such behavior.	Sentence
Petition	Document filed in juvenile court to bring charges against a youth or send a case to adult court.	Indictment
Secure Placement	Holding a youth in a secure facility, under court authority, to comply with the terms of a juvenile court disposition order.	Incarceration
Transfer	General term used to describe the variety of legal mechanisms that can send a juvenile to criminal court to stand trial as an adult.	*None*
Waiver	One form of criminal court transfer in which a juvenile court judge "waives" jurisdiction over a particular case thus allowing the case to be tried in adult court.	*None*

PREFACE

The falling rate of violent crime in the United States is not likely to reduce the need for effective policies and programs to address youth gun violence. The rate of firearm deaths among American youth is still one of the highest in the world. In the coming years, all levels of government, the private sector, and communities will require sound information and practical guidance as they try to reduce gun violence among young people.

Most state and local jurisdictions across the country have enacted sweeping changes in their juvenile justice systems in recent years. Many of these reforms in law and policy focused on gun violence, including laws that expanded the number of juveniles sent to adult court, those that reduced the confidentiality of the juvenile court process, and policies that increased the use of automatic or mandatory decision-making in choosing which youthful offenders should be held in detention.

The question for policymakers and community leaders is, "is this the right strategy?" Are the legislative and policy reforms enacted in recent years making the juvenile justice system more responsive and more effective? Are young people being well-served, and are communities being adequately protected? Is the new, tougher style of American juvenile justice an effective approach to dealing with youth gun violence?

The Urban Institute prepared this overview of policy issues related to youth gun violence at the request of the Joyce Foundation. The Urban Institute and the Foundation share an interest in the impact of recent law and policy changes in the juvenile justice system, especially laws and policies that designate gun-related offenses for special, and in many cases, punitive handling.

The primary purpose of this report is to facilitate discussions among staff and officers of the Joyce Foundation. Developing fully satisfactory answers to the many important policy questions related to youth and guns is beyond the scope of this preliminary report. The information provided here, however, should help to focus discussions about these issues and aid in the development of future research efforts.

REVIEW OF RECENT TRENDS

Gun violence, especially youth gun violence, captured headlines and shocked the nation during the 1990s. According to a recent report from the U.S. Department of Justice, communities throughout the country confronted an alarming wave of gun violence during the past 20 years:

- Nearly 38,000 juveniles were murdered in the United States between 1980 and 1997.
- Homicides by juveniles more than quadrupled between 1984 and 1994.
- The per capita arrest rate for juvenile weapons offenses doubled between 1987 and 1993.
- All of the increase in homicides by juveniles in the 1980s and 1990s was due to the use of firearms; the number of non-firearm homicides was relatively unchanged.
- Between 1980 and 1997, three-quarters of murder victims ages 12 to 17 were killed with firearms.
- The rate of youth suicides involving firearms grew 39 percent between 1980 and 1994.

Source: *Kids and Guns* (1999). National Report Series: Juvenile Justice Bulletin. Washington, DC: U.S. Department of Justice, Office of Juvenile Justice and Delinquency Prevention.

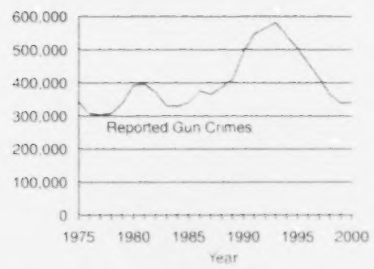
During the past decade, facts like these inspired new legislation at virtually every level of government. State and local jurisdictions across the country introduced prevention initiatives to combat gun violence, such as school-based violence prevention curricula, community-based education programs, aggressive diversion programs for first-time offenders, specialized gun courts, and "gun-free zones" in urban areas.

Nearly every jurisdiction in the country adopted "get tough" measures to curb gun violence. Public officials mandated prison sentences for gun-related crimes, automatically transferred youth to adult court for offenses involving guns, excluded juvenile gun offenders from diversion and rehabilitative programs, and imposed harsh penalties for students caught with weapons in school.

During the 1990s, the federal government and almost all states enacted legislation to address gun violence. At the federal level, for example, the 1994 Gun-Free Schools Act (PL 103-382) required that states receiving assistance under the Elementary and Secondary Education Act (ESEA) provide for the expulsion of students that bring firearms to school. Congress continued to work on other legislation to reduce youth gun violence during 2000 and 2001.

State governments paid special attention to youth gun violence in recent years. Many jurisdictions expanded their legal restrictions on the possession and use of firearms by youth. Nearly all states regulated the age at which an individual may purchase or receive a gun. Most states provided enhanced criminal penalties for adults who facilitate the transfer of firearms to youth. Almost one in three states prohibited minors from possessing any firearms.

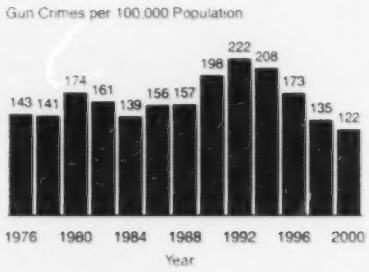
Gun crimes jumped 65 percent nationwide between 1984 and 1994, before falling sharply through 1999



Note: Gun crimes include murders, aggravated assaults, and robberies committed with firearms.

Source: *Crime in the United States* (annual, 1975 to 2000). Washington, DC: U.S. Department of Justice.

The rate of gun crimes in 2000 was the lowest in more than 20 years



Source: *Crime in the United States* (annual, 1976 to 2000). Washington, DC: U.S. Department of Justice, Federal Bureau of Investigation. Data provided by the Bureau of Justice Statistics. On the Internet: http://www.ojp.usdoj.gov/bjs/glance/tables/guncrimetab.htm.

Changing Juvenile Justice

By the end of the 1990s, the decade-long wave of gun violence had largely subsided. Rates of gun offending and victimization returned to levels not seen since the 1970s. Lawmakers and researchers will continue to debate whether the turnaround was due to changes in law and policy, or to other economic and social forces.

Changes made in the justice system during those years, however, are not as widely debated. They are likely to remain in place for years to come. Some policy changes made in juvenile justice may have been warranted. Many jurisdictions, for example, began to respond in a meaningful, albeit informal way to the first instance of illegal behavior by juveniles rather than waiting until the second or third offense when criminality is more entrenched. Juvenile justice professionals also began to embrace the principles of restorative justice, and they became more attuned to the needs of crime victims.

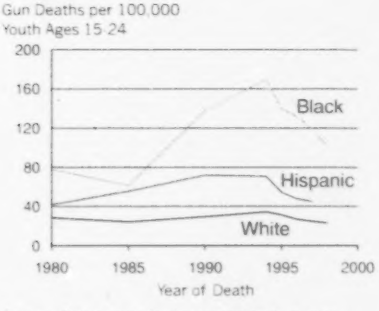
On the other hand, some of the legislative answers to rising gun crime may turn out to have been not so beneficial. Lawmakers enacted dramatic reforms in juvenile law in response to gun violence. Some of these changes altered basic elements of the juvenile justice system, and sometimes in ways not fully appreciated by lawmakers. Many states essentially transformed their juvenile justice systems, remaking them in the image of adult justice.

For nearly seventy years after America's juvenile courts first emerged in the early 1900s, state laws directed juvenile court judges to dispense individualized justice. Judges were to respond to each delinquent youth according to his or her individual situation and potential problem areas, and not simply choose a sentence based upon the severity of the youth's offense. Whether in cases of petty theft or armed robbery, the mission of the court was the same – identify the factors causing juveniles to go astray, and work to reverse those factors through a combination of services and sanctions. The entire process was to be rehabilitative, confidential, and non-stigmatizing.

This traditional approach to juvenile justice had disappeared by the 1980s. Lawmakers remodeled the juvenile justice system to target criminality rather than social problems. Judges imposed more severe sentences for more severe law violations, independently of social and developmental concerns. Juvenile prosecutors adopted retribution as a policy goal. Legislators endorsed secure confinement as incapacitation rather than treatment. The juvenile justice system became less individualized, more automatic, less confidential, and increasingly punitive. Policymakers escalated the rate of these changes during the 1980s and 1990s, largely in reaction to the public's fear of juvenile gun violence.

Many states transformed their juvenile justice systems, remaking them in the image of adult justice.

Recent increases in gun violence were especially deadly for black youth



Source: Death rates for firearm-related injuries, 1980 to 1998, National Vital Statistics System, Centers for Disease Control and Prevention, National Center for Health Statistics. On the Internet: www.cdc.gov/nchs/fastats/firearms.htm.

Despite recent increases, juvenile gun homicides are still a relatively small part of the overall crime problem

	Number of Crimes in 1999
All Violent Index offenses (homicide, forcible rape, robbery, and aggravated assault)	1,430,693
All crimes committed with guns	338,535
Homicides committed with guns	10,128
Gun homicides committed by youth ages 18 to 24	4,973
Gun homicides committed by juveniles under age 18	1,210

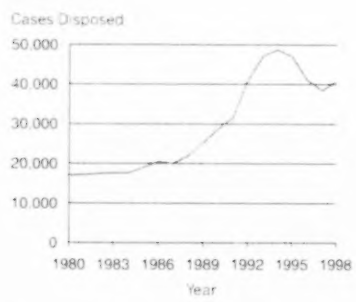
Source: *Uniform Crime Reports, Supplementary Homicide Reports* (1999). Washington, DC: U.S. Department of Justice, Federal Bureau of Investigation. Data rovided by the Bureau of Justice Statistics. On the Internet: www.ojp.usdoj.gov/bjs/homicide; and http://www.ojp.usdoj.gov/bjs/guns.htm.

Several states in the Great Lakes region made transfer to adult court automatic or mandatory for certain juveniles charged with gun-related offenses

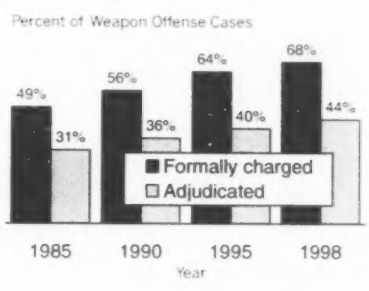
	Gun-related Cases Named by Statute	Amount of Discretion
Illinois	Age 15 or older, charged with robbery with firearm, aggravated hijacking with firearm, aggravated battery with firearm on or near a school, or unlawful use of weapons on school grounds.	None Transfer is automatic
Indiana	Age 16 or older, charged with armed robbery, illegally carrying a handgun or providing gun to child.	None Transfer is automatic
Iowa	Age 16 or older, charged with felony weapon violation, including violations involving gang activity.	None Transfer is automatic
Michigan	Age 14 or older, charged with armed assault with intent to steal or do harm, armed robbery, or any attempt, conspiracy, or solicitation to commit these offenses.	Transfer is at the discretion of prosecutor
Minnesota	Age 16 or older, charged with a felony involving a firearm or any offense that would result in presumptive commitment under criminal law.	Transfer is at discretion of the judge, but presumptive under state law
Ohio	Age 16 or older, charged with voluntary or first degree involuntary manslaughter, rape, aggravated robbery, arson, or aggravated burglary with firearm, where youth was previously adjudicated for a category 1 or 2 offense.	Transfer is carried out by the judge, but is mandatory under state law
Wisconsin	No specific transfer provisions for gun offenses.	Transfer is at discretion of judge for any offense after age 15.

Source: Griffin, Patrick (2000). "Transfer Provisions." State Juvenile Justice Profiles. Pittsburgh, PA: National Center for Juvenile Justice. On the Internet: www.ncjj.org/stateprofiles. Accessed August 2001.

Weapons cases in juvenile courts more than doubled between 1980 and 1994



Juvenile courts began to handle weapon cases more formally in recent years



Note: Figures include only cases in which a weapon offense was the primary charge.

Source: National Juvenile Court Data Archive. National Center for Juvenile Justice. Pittsburgh, PA.

Rising Violent Crime

It is easy to see why state and federal policymakers responded so strongly to youth gun violence during the 1980s and 1990s. The incidence of violent youth crime soared during those years. Between 1984 and 1994, the per capita rate of juvenile homicide arrests climbed 177 percent nationwide. The juvenile arrest rate for all four offenses included in the FBI's Violent Crime Index (murder, robbery, aggravated assault, and forcible rape) grew 76 percent.

The growing arrest rate for violent crime seemed to mirror a much larger trend of escalating violence among young people, and much of it was associated with the use of firearms.

By 1997, according to the Centers for Disease Control and Prevention, death due to firearms – whether accident, suicide or homicide – was the second leading cause of death among 15-24 year-olds and the third leading cause of death among 10-14 year-olds. The risk of gun death was particularly high among African Americans where gun violence became the leading cause of death among young males.

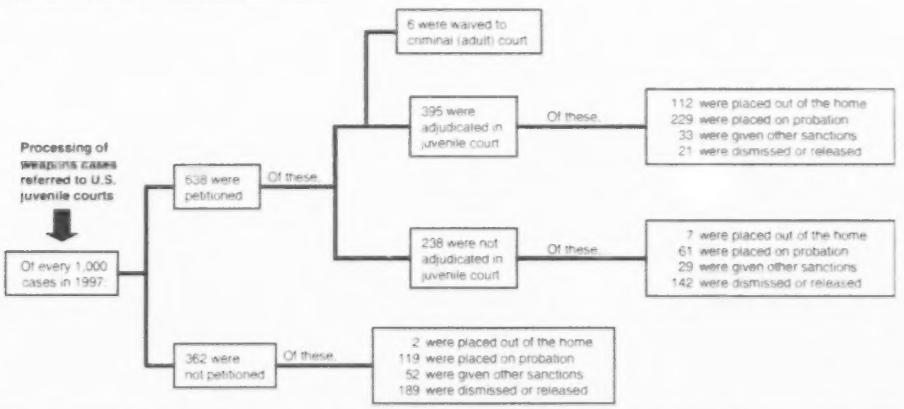
Juvenile courts also began to handle more cases involving firearms and other weapons. In 1980, according to the federal Office of Juvenile Justice and Delinquency Prevention, juvenile courts nationwide handled an estimated 17,000 cases where a weapon offense was the primary charge. By 1994, the number of these cases had grown to nearly 50,000.

Of course, there were far more than 50,000 juvenile court cases involving weapons in 1994. Many robbery cases, aggravated assault cases, and homicide cases, for example, involve the use of weapons. Weapon offense cases are those in which the most serious charge against a youth was possession or use of a weapon. The steep increase in these cases during the 1980s and early 1990s is consistent with a rising level of arrests and prosecutions for all types of juvenile gun crimes.

The juvenile court system began to respond more formally to cases involving weapons offenses during the 1980s and 1990s. The proportion of weapons cases in which charges were filed by prosecutors rather than allowing youth to be handled informally increased from 49 to 68 percent between 1985 and 1998. Cases ending in adjudication (or, conviction) also grew, from 31 percent of all weapons cases in 1985 to 44 percent in 1998.

Between 1994 and 1997, the number of weapons cases seen in U.S. juvenile courts fell to an estimated 38,500, following the trend seen in other indicators of youth violence. In 1998, the number of these cases grew again to 40,700, reflecting either shifting emphases in law enforcement and prosecution, or a possible rebound in the number of juveniles involved in weapons offenses.

Two-thirds (65%) of juvenile court weapon cases receive some type of formal or informal sanction


Processing of weapons cases referred to U.S. juvenile courts
Of every 1,000 cases in 1997
638 were petitioned
Of these
6 were waived to criminal (adult) court
395 were adjudicated in juvenile court
Of these
112 were placed out of the home
229 were placed on probation
33 were given other sanctions
21 were dismissed or released
238 were not adjudicated in juvenile court
Of these
7 were placed out of the home
61 were placed on probation
29 were given other sanctions
142 were dismissed or released
362 were not petitioned
Of these
2 were placed out of the home
119 were placed on probation
52 were given other sanctions
189 were dismissed or released

Notes: Detail may not add to totals due to rounding. Figure includes only cases in which a weapon offense was the primary charge. Cases waived to adult court include those by judicial order only and do not include transfers by prosecutors or legislative exclusion laws.

Source: *OJJDP Statistical Briefing Book*. On the Internet: ojjdp.ncjrs.org/ojstatbb/qa237.html. Accessed August 2001.

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Falling Violent Crime

In the mid-1990s, violent crime rates suddenly began to drop among both adults and juveniles. According to data from the FBI, law enforcement agencies across the country made approximately 150,000 juvenile arrests for violent crime offenses in 1994. Six years later in 2000, the national number of violent crime arrests among juveniles was just 98,900.

Arrests for the most serious offenses fell substantially between 1994 and 2000. During this time, arrests for murder dropped more than 60 percent among juveniles, robbery arrests were more than 40 percent lower, and aggravated assault arrests were down nearly 20 percent. Overall, the per capita rate of juvenile arrests for Violent Crime Index offenses fell by nearly 40 percent between 1994 and 2000.

By the end of 2001, preliminary data indicated that the crime drop most likely continued past 2000, but the pace of change was beginning to slow. Most analysts were expecting the downward trend in juvenile violence to begin slowing as well.

As violent crime began to drop in the 1990s, it became clear that the preceding crime wave had not been due to an undifferentiated increase in violent and murderous behavior in the United States. Among adults as well as juveniles, the cycle of growth and decline in violent crime during the 1990s was almost entirely due to the use of firearms. The number of non-gun murders was relatively unchanged throughout the peak years of the violent crime wave between 1984 and 1994.

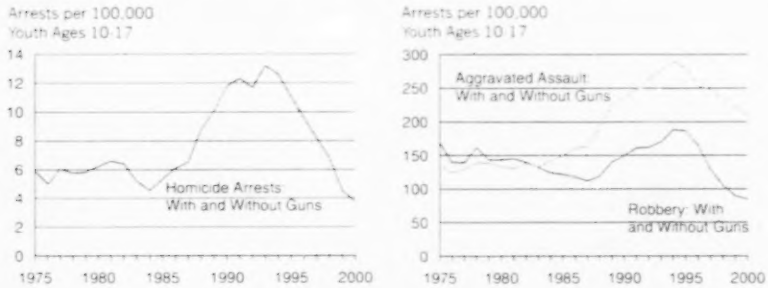
Juvenile vs. Youth Crime

Crime data from the 1980s and 1990s also made it clear that some of the legislative reaction to the crime wave was misplaced. The public and the nation's lawmakers reacted to what they saw as a "juvenile" crime wave, when in reality it was a "youth" crime wave. Recent growth in violent crime by juveniles, particularly gun crime, was nearly always equaled or surpassed by the growth in violence by youth between the ages of 18 and 25.

People often use the words "youth" and "juvenile" interchangeably in discussing crime policy, but there is a critical difference. The term "juvenile" has a precise legal meaning. Depending on state law, a juvenile is usually someone under the age of 17 or 18. The term "youth," on the other hand, varies greatly in meaning, often including people through the ages of 21, 25, and even into the late 20s.

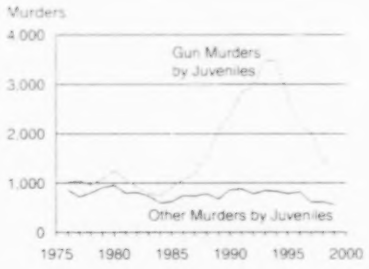
Juvenile courts are responsible for dealing with the illegal behaviors of juveniles. Youth over age 18 are adults. Their law violations are handled in adult, or criminal

Juvenile arrests for violent offenses peaked in the mid-1990s before falling sharply through 2000



Source: Urban Institute analysis of data from *Crime in the United States* (annual, 1975 to 2000). Washington, DC: U.S. Department of Justice, Federal Bureau of Investigation.

The drop in youth homicides in the late 1990s was nearly all gun-related



Source: *Supplementary Homicide Reports* (1976 to 1999). Washington, DC: U.S. Department of Justice, Federal Bureau of Investigation. Data provided by the Bureau of Justice Statistics. On the Internet: www.ojp.usdoj.gov/bjs/homicide

court. The implications of this distinction are important in analyses of gun violence and crime policy.

When media analysts and lawmakers contrasted the violent crimes of "juveniles" and "adults" during the 1990s, trends in juvenile crime always appeared far more serious. It seemed obvious that efforts to solve the nation's gun violence problem should focus on reforming juvenile justice.

Arrest rates for murder, for example, increased sharply during the 1980s and early 1990s. Arrests doubled among "juveniles" while remaining relatively flat among "adults." The comparison made it seem as if the juvenile justice system was failing to control crime. Lawmakers reacted by making sweeping changes in the juvenile justice system, such as sending more juveniles to criminal court.

Simple comparisons between juveniles and all adults, however, masked significant differences in violent crime rates within the adult population. Young adults between the ages of 18 and 24 have far higher violent crime rates than adults over age 25, and especially those over age 35. Combining all adults into one group for statistical comparisons prevented policymakers from understanding that violent gun crime was growing significantly among young people in general during the 1980s and 1990s, not only among juveniles.

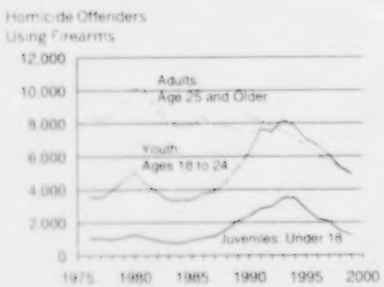
Assessing Reforms

Increases in youth gun violence, as well as misperceptions of youth gun violence, have had significant consequences for the nation's juvenile justice system. In recent years, state and federal policymakers concluded that something was terribly wrong with the nation's juvenile justice system. Public officials enacted laws that de-emphasized the juvenile court's traditional mission of individualized intervention and rehabilitation and moved to embrace the retribution model used in the criminal justice system. In nearly all states, lawmakers also enacted policies to send more juveniles to adult court.

Were these policies responsible for the declining rate of gun violence among juveniles and other youth during the late 1990s? Should lawmakers enact more of the same type of policies to curb the still unacceptably high rate of gun violence among the nation's youth? Before public officials spend another decade pursuing the same solutions, researchers should assemble the evidence needed to assess their impact.

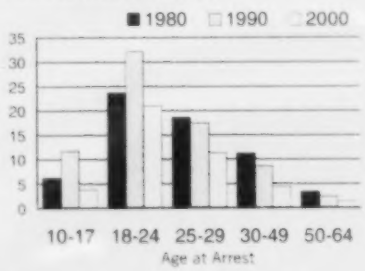
Lawmakers changed the "juvenile" justice system in response to a problem with "youth" violence.

Gun violence grew among youth in general, not only among "juveniles"



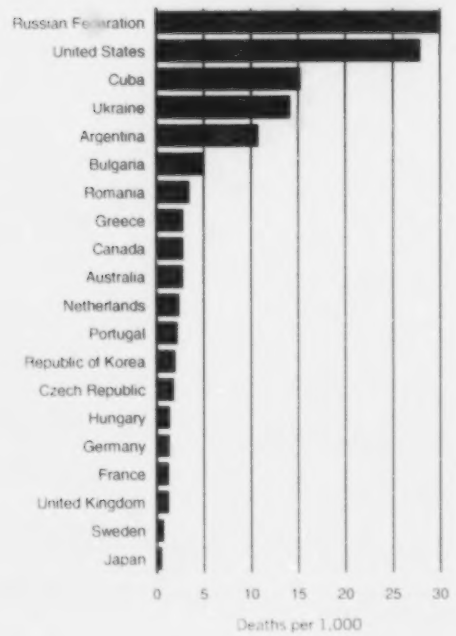
Source: *Supplementary Homicide Reports* (1976 to 1999). Washington, DC: U.S. Department of Justice, Federal Bureau of Investigation. Data provided by the Bureau of Justice Statistics. On the internet: www.ojp.usdoj.gov/bjs/homicide

Simple comparisons between "juvenile" and "adult" violence can be misleading



Source: Urban Institute analysis of data from *Crime in the United States* (annual, 1980 to 2000). Washington, DC: U.S. Department of Justice, Federal Bureau of Investigation.

The U.S. has one of the world's highest violent death rates for youth ages 15-24



Note: Deaths by intentional violence in most recent year available (1996, 1997, or 1998). Countries shown are those with youth populations (ages 15-24) of at least 500,000.

Source: *1997-1999 World Health Statistics Annual*. World Health Organization (WHO) Global Programme on Evidence for Health Policy. Table 1: Numbers of deaths and death rates by cause, sex and age. On the Internet: http://www.who.int/whosis.

Despite slowly declining rates of gun possession, high school students report continuing levels of victimization in school settings

	1993	1995	1997	1999
Carried a gun past 30 days	8%	8%	6%	5%
Carried a weapon in school past 30 days	12%	10%	9%	7%
Threatened or injured with weapon on school property in last year	7%	8%	7%	8%

Source: Centers for Disease Control and Prevention (2001). *Youth Risk Behavior Surveillance System – Youth Risk Behavior Surveys*. On the Internet: www.cdc.gov/nccdphp/dash/yrbs.

RESEARCH STRATEGIES AND INFORMATION SOURCES

Sound answers are not yet available for many of the most important questions about the effect of the changes in juvenile justice enacted in response to youth gun violence. To produce new information that will be practical and policy relevant, researchers must focus on specific aspects of law and policy and limit the scope of their investigations to a relatively small number of jurisdictions. The sheer magnitude of recent legislative activity, combined with the inherent variation between state legal systems, makes national studies difficult and expensive.

Future investigations will also have to go beyond the traditional focus of epidemiological and criminological research. While it is vital to understand the causes and effects of gun violence on youth, families, and communities, a growing body of this literature already exists. We know much less about the effects of gun crime on the justice system. Namely, how have the policy reforms prompted by the recent wave of gun violence affected the operations of the juvenile justice system and its effectiveness in preventing juvenile crime?

The Joyce Foundation may be interested in developing such a research agenda on youth and guns, and particularly the impact of new gun laws on the juvenile justice system. The Urban Institute shares this interest and it has provided this report as a preliminary guide to the range of issues that might be addressed in a more comprehensive research program on youth gun violence and the justice system.

The remaining sections of the report provide information that could be helpful in planning this research agenda. The report describes possible areas of analysis and data sources for an investigation of youth gun possession and use, recent legislative activity to address gun violence, and model programs and practices used to reduce youth gun violence in state and local jurisdictions.

The first step in a broader research agenda on juvenile justice and gun violence would be to establish the state of knowledge regarding the effectiveness of gun violence reduction efforts in general. In particular, what does previous research have to say about the effectiveness of gun laws and policy strategies directed at youth gun violence?

Since the Federal Gun Control Act of 1968, there has been considerable research interest in gun control laws and their impact on crime. Few researchers have focused on the effects of gun laws on the justice system. Research is particularly lacking on how gun laws and gun-related policies affect the juvenile justice system. Policymakers simply do not know how youth are affected when legislation alters the justice system's response to cases involving firearms.

Nevertheless, prior research suggests a couple of relevant lessons for those seeking to understand the effects of policy changes on youth who commit crimes involving guns. First, laws that simply restrict access to firearms by certain designated groups (e.g., juveniles, adults with criminal records) while allowing other groups (e.g., adults with no criminal records) relatively unencumbered access to firearms appear unlikely to reduce gun crime. Second, gun laws based on a deterrence model (e.g., sentence enhancements for firearm-involved felonies) have shown some evidence of success, but their impact depends greatly on the quality and consistency of their implementation. This could pose a particular challenge for the juvenile justice system.

Restricting Access to Firearms

Studies on the effectiveness of gun access restriction laws suggest that such laws may not, by themselves, reduce gun violence. McDowall (1994) conducted a quantitative synthesis of studies on laws that required waiting periods for retail firearm purchases. He found that the introduction of waiting periods was not associated with significant increases or decreases in homicide or suicide.

More recently, Ludwig and Cook (2000) found that the interim provisions of the federal Brady Act did not reduce homicide victimization rates among adults 21 years of age and older. (This study confined itself to outcomes for adults because juveniles were prohibited from buying handguns before the Brady Act took effect.)

Jacobs and Potter (1995, 1998) articulated a series of legal and practical arguments to suggest that waiting periods, licensing gun owners, and firearm registration

Lessons from Research on Gun Laws

Laws that restrict access to guns may not have significant effects on crime. Federal laws have prohibited juveniles from purchasing firearms for many years, but juveniles continue to report that they have easy access to guns.

Child-Access Prevention (CAP) laws do not seem to reduce accidental firearm fatalities among children, although they may reduce suicide among juveniles.

Policies mandating sentence enhancements for felons who use guns have shown some success in deterring firearm homicide, but it is unclear whether this approach has potential in the context of the juvenile justice system.

were unlikely to keep guns away from juveniles and felons. They suggested that such policies would fail even if more resources were devoted to enforcement.

Child-access prevention (CAP) laws were enacted in 15 states between 1989 and 1997 (Webster and Starnes 2000). Research findings about these laws are mixed. Cummings et al. (1997) found that CAP laws reduced accidental shooting deaths among children under age 15 after controlling for national trends in unintentional firearm-related mortality. The decrease in mortality rates was greatest in three states (California, Florida, and Connecticut) that allowed felony prosecutions of parents whose firearms were involved in the unintentional shooting deaths of children. The decrease in unintentional firearm-related mortality was not statistically significant in the nine states that allowed only misdemeanor prosecutions.

Webster and Starnes (2000) extended the analysis of Cummings et al. (1997) by adding three years of data. They found that Florida's CAP law had reduced accidental firearm mortality among children under 14, but other state CAP laws had no impact. Lott and Whitley (1999) looked at a wider slate of outcomes and found that CAP laws had no effect on accidental firearm mortality. They also found that CAP laws may be associated with small reductions in firearm suicide among juveniles without affecting suicide overall.

Research suggests it is difficult to achieve meaningful and lasting reductions in gun crime with justice policies alone.

Deterring Gun Crime

The effect of gun laws as a deterrent to gun crime has not been easy to demonstrate. McDowall et al. (1992) synthesized results from an evaluation of sentencing enhancement laws for gun crime in Pittsburgh and Philadelphia along with three earlier studies (Loftin and McDowall 1981; Loftin et al. 1983; Loftin and McDowall 1984). Using data from six metropolitan areas in three states, they concluded that sentence enhancement laws had substantially reduced firearm homicide but not firearm assaults or robberies. The reduction in firearm homicide was significant even though earlier studies indicated that average sentences for murder and armed robbery with a firearm had not increased after the law became effective in one of the sites (Detroit, Michigan) (Loftin and McDowall 1981; Loftin et al. 1983).

McDowall (1994) extended this type of analysis to include data from 10 metropolitan areas and one state (Kansas) and found that firearm sentence enhancements were associated with significant reductions in firearm homicide and significant increases in homicide by other means.

McPheters et al. (1984) evaluated a 1974 Arizona law mandating a minimum prison sentence of five years for a first offense of robbery with a firearm using data from two urban counties – Maricopa (Phoenix) and Pima (Tucson). The results suggested that armed robberies with guns decreased significantly in both counties after the laws become effective. Both the probability of imprisonment and the length of sentence for robbery increased after the law became effective.

These studies offer some indication that sentence enhancements may deter gun crime, or at least gun homicide. One recent study, however, reached a contrary conclusion. Marvell and Moody (1995) used panel data from 49 states to perform a nationwide evaluation of the effects of sentence-enhancement laws for firearm crimes. They concluded that on average, such laws do not reduce gun crime, or even crime generally, and that they have no impact on the size of prison populations or the volume of prison admissions.

In addition, some researchers have found that sentence enhancement laws may have positive effects but their impact is short-lived. Some jurisdictions saw no real increase in sentencing severity from firearm sentence enhancement laws, but they nonetheless enjoyed a brief reduction in gun violence. The wave of publicity that accompanies the enactment of new laws may be the real deterrent (O'Carroll et al. 1991; Pierce and Bowers 1981).

Legislation & Policy

Before attempting to establish the effect of gun laws on crime, researchers need to simply describe the range of new youth gun laws introduced during the 1980s and 1990s. Nearly every jurisdiction (state and federal) enacted legislation to address gun violence among youth in recent years. Developing complete information on legislative activity would have to begin with a detailed examination of publicly available legal databases, such as those maintained by LexisNexis or Westlaw. Researchers would also need to review non-statutory information, such as the court rules and agency policies that determine how legislative priorities are implemented.

Some basic trends, however, are clear even from a cursory review. Most jurisdictions have followed a similar path in developing new legislation and policy. States

have paid particular attention to gun ownership, possession, and gun use, as well as the creation of gun-free schools and other gun-free zones.

Drawing on recent descriptions of statutory changes (Holden et al. 1994; OJJDP 1996; Torbet et al. 1996; National Criminal Justice Association 1997; Yee 2000), two themes are apparent in analyses of laws to address youth gun violence: 1) the first response of most policymakers is to increase sanctions for youth crimes involving guns, and 2) lawmakers also usually attempt to limit youth access to guns.

One of the most important tasks for new research is simply to describe the range of youth gun laws introduced during the 1980s and 1990s.

Limitations on Access

General Restrictions. Close to half the states have laws restricting possession of handguns by youth and almost one-third prohibit possession of any firearm by youth. Although many states provide youth with limited access to guns for recreational purposes, they frequently attach strict requirements to this access, such as the presence of a parent or approved guardian. Almost all states prohibit adjudicated delinquents from possessing any firearms or at least restrict their access to firearms for a specified period following adjudication, such as 10 years.

Gun Licensing. Almost all states have laws that regulate the age at which an individual may purchase a gun or receive a gun as a gift or loan. Most states also provide enhanced penalties for adults who facilitate the transfer of firearms to youth.

Parental Responsibility. Many states have "safe storage" and "child access prevention" laws. The goal of these laws is to hold parents accountable for guns they own and to decrease access to guns by children and youth. Maine, for example, requires youth that hunt to be accompanied by a parent or guardian.

Offender Sanctions

Enhanced Penalties. In many states, youthful offenders adjudicated for an act of delinquency can receive enhanced penalties if they are in possession of a firearm at the time of their offense. Enhanced penalties can include confinement or lengthier terms of confinement, but they also can include transfer to the adult system.

For example, Texas enacted legislation in 1995 that created determinate/fixed sentences for youth convicted of specific firearm-related offenses. These sentences carry much longer terms of incarceration than those available under conventional delinquency proceedings.

Transfer to Adult Court. A central feature of most "get tough" juvenile justice reforms is increased flexibility for prosecutors (and often less flexibility for judges) in determining which juveniles should be sent to adult court. Many states include firearm-related offenses, including gun possession, in the list of offenses affected by these laws.

Arkansas, for example, allows prosecutors to file cases directly in adult court if youth are at least 15 years old and charged with discharging a firearm from a vehicle, committing a felony with a weapon, or possessing a weapon on school property. Nevada enacted a law in 1995 that allows 14-year-olds arrested for offenses that would be felonies if committed by adults to be transferred to adult court if a weapon was involved. Texas allows felony firearm offenders convicted as young as age 10 to begin a period of incarceration in a juvenile facility before moving to an adult prison in their late teens.

State lawmakers have used other transfer mechanisms to enhance penalties in gun-related cases. For example, Illinois statutorily excludes youth from the juvenile justice system if they are at least age 15 and charged with certain gun crimes. These youth are essentially transferred to adult court by an act of the legislature.

Other states (e.g., Minnesota) have presumptive judicial waiver laws that operate much like automatic legislative transfer. The law presumes that certain weapons offenses are more appropriate for adult court. If a youth's attorney does not make an adequate argument for retaining a case in juvenile court, the judge is expected to transfer the matter to criminal court.

Gun-Free Zones. Many states provide criminal penalties for possession of weapons on school grounds. Violation of these laws can often result in sanctions even if a juvenile unknowingly possesses a weapon in a restricted safety zone. Delaware created a law that forbids youth to possess a firearm on or within 1,000 feet of schools or school property. Illinois automatically transfers youth to adult court if they commit aggravated battery with a firearm on or within 1,000 feet of a school or school property.

Violations of these laws can provoke a range of "zero-tolerance" sanctions, including expulsion from school and suspension of driver's permits and licenses. Oregon, for example, established a law in 1996 that requires youth who use or possess weapons at school or interscholastic events to be expelled for one year.

Gun-focused criminal court transfer laws in seven states

	Transfer Mechanisms				
	Discretionary Judicial Waiver	**Presumptive Judicial Waiver**	**Mandatory Judicial Waiver**	**Prosecutor Direct File**	**Legislative Exclusion**
IL	Any criminal offense (age 13 or older)	Aggravated discharge of firearm (age 15+); armed violence with a firearm along with Class 1 or 2 felony as part of gang activity (age 15+); armed violence with a restricted weapon (15+)	Any offense qualifying for presumptive transfer (age 15+); aggravated discharge of firearm (age 15+)		Armed robbery with firearm, aggravated hijacking with firearm, or aggravated battery with firearm on or near a school (age 15+); unlawful use of weapons on school grounds (age 15+)
IN	Any criminal offense (age 14 or older); certain felonies (age 16 or older)		Any felony if prior conviction of a felony or non-traffic misdemeanor (no age minimum)		Armed robbery (age 16+); illegally carrying a handgun or transferring a gun to a child (16+)
IA	Any criminal offense (age 14 or older)				Felony-grade weapons violations, including violations associated with gang activity (16+)
MI	Any felony or offense punishable by imprisonment for more than one year (age 14 or older)			Armed assault w/intent to steal or do harm (age 14+); armed robbery (age 14+); attempt, conspiracy, or solicitation to commit these offenses (14+)	
MN	Any felony (age 14 or older)	Felony w/firearm or any offense that would result in presumptive commitment under criminal law (age 16+)			
OH	Any felony (age 14+)		Voluntary or first degree involuntary manslaughter, rape, aggravated robbery, arson, or aggravated burglary w/firearm, where youth was previously adjudicated for a category 1 or 2 offense (age 16+)		
WI	Any criminal offense (age 15 or older)				

Notes: Minimum ages in parentheses. Transfer laws vary with respect to age, offense, and other criteria. Types of transfer: discretionary (judge can transfer case to adult court, but prosecutor typically initiates process); presumptive (offenders presumed appropriate for adult court, case is rebuttable); direct file (prosecutor decides whether case will be handled in juvenile or adult court); mandatory (juvenile court must transfer case to adult court); statutory exclusion (case must begin in, and be processed by, adult court).

Source: Griffin, Patrick (2000). "Transfer Provisions." State Juvenile Justice Profiles. Pittsburgh, PA: National Center for Juvenile Justice. On the Internet: http://www.ncjj.org/stateprofiles.

The Ohio legislature enacted a law that requires local school boards to adopt comprehensive school-safety initiatives, which may include provisions for expelling youth possessing firearms on or near school property. Kansas allows school officials to notify the Department of Motor Vehicles of violations of school firearm laws so that the DMV may suspend the youth's license to drive.

Extra-Legal Measures

Not all states have relied on negative or punitive sanctions in writing new gun laws. For example, New York passed legislation in 1996 that grants immunity from prosecution to youth who voluntarily surrender weapons to law enforcement.

Other states show an increasing interest in prevention efforts, such as dealing more intrusively with suspected weapons possession cases. For example, the State of Washington recently created a law requiring mental health evaluations of students when reasonable grounds exist to suspect them of possessing firearms on school grounds.

Critical Questions

There are many unanswered questions about the impact of new laws focusing on youth gun violence. Even the nature of recent state firearm laws, for example, including the scope of the laws and the age groups affected, has yet to be fully described in a way that is accessible to public officials.

A systematic and detailed description of changes in state laws over the past 10 to 20 years would be an important contribution to policy and practice. Of course, in addition to basic descriptive studies, research is also needed on the actual effects of new gun laws.

Studies of new gun laws should focus on effects beyond the traditional considerations of court outcomes, offender recidivism, and crime rates. For example, most

Legislation and policy

Critical Questions	Analysis Strategies
What similarities and differences exist nationally in state laws that focus on youth and guns?	Access online databases. Compare statutory goals, strategies, and intended outcomes.
Which laws are used most often by states and to what effect? When youth are transferred to adult court, do they receive more severe sanctions or longer terms of incarceration? Is there a deterrent effect associated with transfer for youth involved with firearms? How do rehabilitative options for gun offenders differ in the juvenile and adult systems?	Analyze state and local juvenile justice system databases and track youth in each system. Survey prosecutors, judges, and defense attorneys in a sample of jurisdictions about actual practices (i.e., laws in practice vs. laws "on the books").
What effect do gun laws have on correctional facilities when they target: ■ specific age groups (e.g., 15 and 16-year-olds)? ■ gun-related offenses committed on or near schools? ■ other sub-groups of offenders?	Examine juvenile and adult correctional data to identify changes following new laws. Survey and interview officials and practitioners about changes in composition of correctional population and how needs of youth are met.
What impact do new gun laws have on communities and the residents of those communities?	Analyze local crime trends and survey data. Survey police departments and communities. Survey households.
Do parental responsibility laws reduce youth access to guns? To what extent are gun-related youth offenses committed with weapons owned by parents? Are these youth sanctioned differently than other youth?	Survey households. Analyze juvenile arrest and correctional databases.
What are the unintended consequences of new gun laws? Do youth gun laws create unfair plea bargaining situations? Do youth gun laws lead to greater or lesser disparity in sanctioning, less severe sanctioning than in adult court, or targeting of less serious offenders?	Interview prosecutors, judges, and defense attorneys. Analyze juvenile arrest and correctional databases as well as adult correctional databases.

states have traditionally used juvenile correctional facilities for older youth, usually ages 15 to 17. Gun laws that require incarceration for offenders as young as 12 may change the atmosphere of juvenile facilities, perhaps in ways not reported to officials.

Recent changes in transfer policies and the broader use of school firearm laws in particular could have profound effects on detention and correctional populations, depending on their scope and how they are enforced. Reviewing new laws that focus on gun-related youth violence and the processing of youth charged with violations of such laws could provide important contextual information for understanding changing patterns of juvenile processing, the uses of secure detention, and other services.

Implementation and Outcomes. Research on the effects of new gun laws will have to look further than the mere enactment of the laws. Are the new laws implemented as legislators intend? How does the law in practice compare with the law on the books?

Are new gun laws, especially transfer provisions related to gun-related juvenile offenses, used consistently? Are they used in the type of cases they were designed to affect? Are the main effects of the laws seen in court outcomes or in pre-court plea negotiations? Policymakers lack reliable answers to many such basic questions.

Differences in urban and rural implementation of youth gun laws may also be important. Previous research has shown that juvenile offenders may be handled quite differently in rural, suburban, and urban counties (Feld 1991).

Mears (1998) found that newly introduced juvenile sentencing options can be used quite differently by jurisdictions within the same state. A juvenile prosecutor who had worked in four counties in Texas during his career noted that serious juvenile offenders are handled quite differently across Texas, depending on local attitudes and legal climate.

> [Consistency] is something that really interests me because I've been in four different counties. They all handle their cases, both juvenile and adult, very differently. . . . For example, when I worked in [one county], there was zero-tolerance for kids with guns on school campuses. If they were of an age where we could certify [or transfer] them, then we would certify all of those kids – and the judge generally went along with that. It was the attitude of the community, the judge, and the district attorney's office – and the defense attorneys knew what to expect. In [another] county, [that approach] is unheard of. If a kid had no priors and had good parents that were going to support them – the attitude of this office would not be to certify a kid whose only offense at this point was bringing a gun onto the school campus, you know, because it's only a third degree felony. Really, the opinions of the public and of the judge really has a whole lot to do with [inconsistency] across counties.
>
> (Source: Mears 1998: 1010-1011)

The same 1998 study by Mears documented that new sentencing laws are often used by prosecutors to obtain an advantage in plea bargaining. As a result, it can be difficult to assess the precise impact of changes in the law because plea bargains rarely become part of the official record. Understanding these dynamics would require researchers to engage in intensive, personal interviewing rather than simply relying on administrative data and case records.

Unintended Outcomes. Research on legal reforms has also consistently shown that new laws can have unintended effects. For example, sentencing guidelines are usually created to enhance consistency and reduce disparity in sentencing, but some studies show that greater inconsistency and disparity can potentially result by shifting discretion from judges to prosecutors.

In the case of youth gun laws, it is not obvious what the unintended effects may be or whether those effects would be serious. One possibility is that juveniles who may be otherwise law-abiding and pro-social could be removed from schools that are eager to appear tough on crime or to avoid potential litigation, even if expulsion is not in the community's best interest. Another is that youth transferred to adult court for firearm offenses may actually receive lesser sanctions than they would have received had their cases remained in juvenile court.

These possibilities should be investigated through standard research methodologies, including surveys of juvenile justice practitioners and comparisons of the processing of similarly charged youth in juvenile versus adult court.

Programs and Interventions

During the past decade, many new prevention and early intervention initiatives have emerged that focus on reducing gun-related youth violence. The U.S. Office of Juvenile Justice and Delinquency Prevention identified more than 60 "promising strategies" to reduce gun violence (OJJDP 1999). The strategies fall into several broad categories:

- comprehensive gun violence reduction initiatives;
- programs to disrupt sources of illegal guns;
- programs to deter illegal gun possession and carrying;

- enhanced prosecutorial and court responses to juvenile offenses involving gun use; and
- educational programs, including alternative education initiatives.

OJJDP also developed the Partnership to Reduce Juvenile Gun Violence Program (Sheppard et al. 2000). This program attempts to build on existing efforts, to promote prevention and intervention, and to develop linkages among the police, the juvenile justice system, and communities. The program involves a range of goals as well as strategies for achieving these goals.

Perhaps the most well known intervention of all in the field of youth gun violence is "Operation Ceasefire" by the Boston Gun Project (Kennedy et al. 2001). Carried out by a partnership of researchers and practitioners, the project focused the informational resources of law enforcement and community organizations on a relatively small number of chronically offending gang-involved youth responsible for much of the city's youth homicide problem. An evaluation of the effort suggested that the project was associated with a 63 percent reduction in youth homicide victimizations as well as significant decreases in gun assaults. Boston's strategy is likely to become a core element of future gun violence reduction programs.

Of course, an essential question that must be answered before these programs will be consistently effective is, "why do kids carry and use guns?" Researchers have begun to explore this issue with significant resources in the past decade. Some studies point to involvement in illegal activities. Others point to a combination of social and psychological factors.

One longitudinal study that examined the psychosocial and interpersonal factors in young adolescence associated with handgun carrying in later adolescence found that measures of risk-taking, depression, stress, temper, and drug use were predictive of later gun carrying in 12th grade for both male and female students (Simon et al. 1998). Fear and self-defense are also common motivations reported by juvenile gun carriers.

Programs that target gun-related youth violence

Types of Programs	Description
Comprehensive Gun Violence Reduction	Comprehensive, collaborative, community-based strategies that include different stakeholders, such as schools, courts, police, local public and private organizations, families, peers, and victims. These strategies typically address both the supply of and demand for guns, including encouraging coordination of efforts among diverse groups and agencies, removing guns from schools and communities, promoting conflict resolution education, implementing tougher sanctioning, supporting more intensive probation and parole supervision, engaging local organizations and communities in crime watch and prevention programs, etc.
Interrupting Sources of Illegal Guns	Supply-focused strategies that limit the availability of legal and illegal guns. Examples include gun tracing (identifying legal ownership), integrated ballistics identification system (linking crime scene shell casing information with a national database), and inspection and investigation of federal firearms licenses (targeting high volume illegal gun sellers).
Deterring Illegal Gun Possession and Carrying	Deterrence-based strategies attempt to limit gun possession among youth. These strategies include programs aimed at reducing illegal gun possession and gun carrying in high crime hotspot areas, schools, and among probationers and parolees.
Prosecutorial and Court Responses to Gun Use	Prosecution and court-based strategies that target gun-involved offenders. Programs include specialized court processing aimed at ensuring speedy, certain, and severe sanctioning; enhanced penalties, including transfer to adult court and longer terms of incarceration.
Education and Alternative Prevention	Education and prevention strategies that change attitudes towards guns and gun violence and that promote safe gun storage and use. These types of strategies include education awareness campaigns about the proper use and storage of guns, safety devices that can be placed on guns, and instruction on how to use guns safely.

Source: Office of Juvenile Justice and Delinquency Prevention (1999). *Promising Strategies to Reduce Gun Violence*. Washington, DC: U.S. Department of Justice, OJJDP.

In a survey study by Hemenway et al. (1996) a majority of adolescents indicated that they carried a gun for self-defense. May (1999) found that youth reporting prior gun possessions were more likely to be fearful and perceive incivilities in personal interactions.

According to Hemenway et al. (1996) there are several other factors linked to youth gun carrying, including smoking, alcohol use, poor academic performance, and lack of confidence in staying out of fights. Youth who report carrying guns are also more likely to have come into personal contact with guns and are more likely to report a shooting victim in their family or neighborhood (Hemenway et al. 1996). Overall, gun carriers are more likely to be male, gang members, and involved in illegal activities (May 1999; Lizotte et. al. 2000; Sheley 1994).

These findings suggest that gun carrying emerges from a complex web of social factors and that interventions need to employ comprehensive approaches. In order to address the causes of gun carrying behavior, researchers need to investigate the behavior in context.

For example, the impetus for gun carrying among juveniles in rural settings can obviously be very different than for juveniles in urban settings, although the consequences can be just as deadly. Urban youth report fear as a determinant of gun carrying behavior, but Sheley (1994) found that fear of a violent attack was not associated with gun carrying for a sample of suburban high school students in Louisiana. Still, even among rural and suburban youth, self-reported gun ownership and gun carrying appears to be linked to drug activities and other illegal behavior.

Critical Questions

Despite recent advances in knowledge about the correlates of gun use among youth, many unanswered questions remain about what kinds of prevention programs work best, or which programs work best for particular populations and in what combination (Sherman 2001). OJJDP helped to provide a framework for classifying the different initiatives and for identifying the outcomes one might anticipate, but there have been few systematic descriptions or evaluations of many initiatives.

Researchers need to examine the most common youth gun violence programs used by state and local jurisdictions. Which programs have been used in the most juvenile justice systems, and to what effect? Studies need

The OJJDP plan for community partnering to reduce juvenile gun violence

Goals	Strategies for Achieving Goals
Reduce youth' illegal access to guns.	■ A firearms suppression strategy that reduces youth' access to guns and prevents illegal gun trafficking by developing special law enforcement units, using community-based residents and businesses to report illegal gun trafficking, targeting gang members, prosecuting youth in possession of illegal guns, and imposing tougher sanctions for gun-related crime.
Reduce the incidence of youth carrying guns illegally and committing gun-related crimes.	■ A juvenile justice sanction strategy that promotes alternative sanctioning where appropriate and interventions that respond to the needs of offenders.
Increase youth awareness of the personal and legal consequences of gun violence.	■ A communication strategy that coordinates the efforts of law enforcement with neighborhoods and includes community policing and community-based efforts to educate at-risk and court-involved youth about the legal consequences of gun violence.
Increase participation of community residents and organizations in youth violence reduction efforts.	■ A positive opportunities strategy that provides youth with beneficial programming such as academic tutoring, mentoring, job training and placement, and after-school activities.
Increase and coordinate services and resources for at-risk youth, especially youth involved in the justice system.	■ An education strategy that teaches at-risk youth how to resolve conflicts and resist peer pressure to carry or possess guns.
	■ A public information strategy that promotes communication about the consequences of juvenile gun violence to youth, families, and residents.
	■ A community mobilization strategy that encourages neighborhood residents and youth to improve the community.

Source: Adapted and paraphrased from page 2 of David Sheppard, Heath Grant, Wendy Rowe, and Nancy Jacobs (2000). *Fighting Juvenile Gun Violence*. Washington, DC: U.S. Department of Justice, Office of Juvenile Justice and Delinquency Prevention.

to classify and catalog programs of various types in specific jurisdictions and states. Which programs have been implemented successfully in the widest range of jurisdictions and with varying populations and characteristics?

Ultimately, practitioners need a program matrix for identifying the contexts and communities in which different initiatives are most appropriate and most likely to result in positive outcomes. What are the most effective strategies for creating and sustaining new youth gun violence initiatives? Perhaps the most critical question is, "do gun violence prevention programs result in more, less, or about the same degree of public safety as the growing number of get-tough laws?" To begin to answer this question, new studies will need to identify the most relevant criteria for assessing effectiveness, including maximizing positive outcomes, minimizing negative unintended consequences, and providing benefits on the most cost-effective basis.

Perhaps the most critical question is, "do gun violence prevention programs result in more, less, or about the same degree of public safety as the growing number of get-tough laws?"

Existing Data Sources

The next step in a research program on youth, guns, and justice system policies would be to identify and obtain all relevant, publicly available data that can be used to address important questions about youth gun violence. Previous studies about youth gun violence typically suffered from a number of problems related to the lack of high-quality, comprehensive data:

- Police and court data often failed to differentiate gun possession or use from the possession or use of other types of weapons.
- Studies were usually unable to distinguish gun carrying from gun use.
- Survey studies relied on biased samples of youth (e.g., school samples that excluded dropouts or data from incarcerated youth).
- Researchers made inappropriate inferences about youth gun violence from data on juvenile crime in general, a problem compounded by the low base rate of gun violence.
- Few studies examined the contextual factors that gave rise to youth gun violence (Fagan and Wilkinson 1998:110-111).

Fortunately, better sources of data have begun to emerge in the last ten years and these new data sources allow researchers to focus more precisely on the levels and nature of youth gun violence.

This report highlights the most promising data sources for addressing critical policy questions on youth gun violence and its impact on the juvenile justice system. The data sources fall into four categories: 1) law enforcement data, 2) juvenile court data, 3) survey data, and 4) gun tracing/gun injury data.

Law Enforcement Data

Any study of crime and justice must begin with data from law enforcement. Law enforcement statistics represent only those offenses and offenders that come to the attention of the police, but they are the best source of national and state level data for monitoring crime trends and the implementation of law and policy.

The two primary sources for national and regional law enforcement data are the Uniform Crime Reports (UCR) and the National Incident-Based Reporting System (NIBRS). Both data series are compiled and reported on an annual basis by the Federal Bureau of Investigation (FBI) using data collected from local police departments about crimes known to the police and any arrests that may result from those crimes.

Uniform Crime Reports. The UCR Program creates the national crime-tracking data used by government agencies and media companies throughout the country. State and local police departments representing more than 80 percent of the national population report information about their crimes and arrests to the UCR Program at the FBI. The database includes information on arrests along the following dimensions:

- Number of reported Index crimes;*
- Total number of arrests and the most serious charge involved in each arrest;
- Age, sex, and race of those arrested;
- Proportion of reported Index crimes that are "cleared" or resolved by arrest;
- Disposition of juvenile arrests; and
- Detailed information on the circumstances surrounding homicide cases, including characteristics of the offender and the victim, and any weapons that may have been involved.

* The Crime Index is comprised of two elements: the Violent Crime Index and the Property Crime Index. The Violent Crime Index includes murder, nonnegligent manslaughter, forcible rape, robbery and aggravated assault. The Property Crime Index includes burglary, larceny theft, motor vehicle theft and arson. Both indices are used for tracking general crime trends.

There are several limitations to UCR data generally, and more specifically there are limitations as to how the data could be used to study youth gun violence.

First, UCR reporting is voluntary. The number of reporting agencies varies from year to year and coverage across states and within states fluctuates. Analyses of UCR data based on age and race, therefore may not always be generalizable to the nation as whole. These problems can be overcome with estimation and imputation techniques, but to do so is time-consuming and takes technical skills.

Another important limitation, particularly for studies of gun violence, is that the UCR program records only the most serious offense for each arrest. If an arrest were to involve both an aggravated assault and illegal possession of a gun, only the assault charge would be reported to the FBI. The UCR data include weapon arrests only when the weapon charge is the most serious offense involved.

The UCR program is also a summary reporting system. All data are reported in aggregate totals – the total number of crimes reported to police in each jurisdiction, the total number of arrests made, and identifying information about each of those arrests. Moreover, arrest statistics do not match the number of crimes committed because one arrest may be associated with several crimes or one crime may involve several offenders.

In this way, UCR data may overestimate the amount of crime committed by juvenile offenders because juveniles are more likely to be arrested for their crimes and are more likely than adults to commit crimes in groups (Snyder 1998). Use of data on crimes known to police regardless of arrest would be an important measure of juvenile offending, but this data does not include the age of the perpetrator.

National Incident-Based Reporting System. The "National Incident-Based Reporting System" (NIBRS) was created to address some of the limitations of the UCR program. The data from NIBRS includes information about each aspect of a crime, including more detailed offense codes, data about each victim and each offender, whether any weapons were used and what type, the relationships between victim(s) and offender(s) if that information is known, and a number of other features of each crime incident. Information about each aspect of the crime can be linked through separate data records, and all of the information can be updated as arrests are made and more information is known.

NIBRS may represent the future of crime reporting in the United States, but it is taking time to implement the system fully. As of February 2001, 19 states were NIBRS certified, 17 states were in the process of testing NIBRS; seven states were developing NIBRS, and eight states had not yet indicated their plans for NIBRS. The top reporting jurisdictions in the Great Lakes region included, Cincinnati, Ohio, Oakland County, MI, Hamilton, Ohio, Akron, Ohio, and Des Moines, Iowa. In fact, the State of Iowa had secured NIBRS participation from all local jurisdictions. Chicago, Illinois is one of the largest jurisdictions developing NIBRS.

Using NIBRS data provides researchers with many benefits. A standardized data structure and consistent definitions allow for higher quality studies that compare crime across neighboring agencies, states, and regions. In one recent study, researchers tested the utility of NIBRS by examining the sale/distribution and possession of narcotics in four localities in Virginia. According to their analysis, NIBRS allowed for more details on crime incidents and enhanced local reporting compliance, as local officials could use the system to examine emerging patterns within and beyond their areas (Faggiani and McLaughlin 1999).

For studies of juvenile crime, NIBRS systems allow researchers to access up-to-date information on not only violent offenders or weapon offenders, but also youth arrested for gun possession or gun use in the commission of another crime.

In one recent study highlighting the use of NIBRS data, Stolzenber and D'Alessio (2000) examined gun availability and rates of violent crime. They found a strong positive relationship between illegal gun activity and juvenile gun crime. A cross-sectional time-series design was used to examine four years of county-level data from NIBRS in South Carolina. The rate of youth gun crime was computed as the number of incidents involving one or more violent felony offenses where a gun was used by an arrested youth, divided by the county population.

Effective utilization of NIBRS data provides numerous benefits to crime and policy analysts, as well as community and government organizations in planning at the local level. Analysis of specific patterns of youth offending with regard to use of guns, comparison and contrast of incident and arrests rates within as well as across jurisdictions, affords the opportunity to monitor and anticipate local and regional trends involving youth and guns (Faggiani and McLaughlin 1999).

Currently, most of the NIBRS jurisdictions in the country do not collect detailed information on the type of guns used in crime, with the exception of the following categories: shotgun, rifle, handgun, or other. However, data elements usually specify if the weapon was automatic or semi-automatic. Even without detailed information on the specific type of gun used, NIBRS data provide an almost unlimited opportunity for research to address pressing questions.

Court Data

A research project on youth and guns would also benefit by obtaining and analyzing data from the National Juvenile Court Data Archive at the National Center for Juvenile Justice. Based in Pittsburgh, Pennsylvania, the Archive builds large data files from juvenile court case records and these data files can be used to examine patterns in juvenile court caseloads, the offenses involved in each case, and how the court responds.

Every year since 1975, the Archive has collected and stored detailed case records about more than 700,000 delinquency cases handled by more than 1,500 individual jurisdictions throughout the United States. In many of the Archive's data files, electronic delinquency case records contain variables that denote not only the most serious offense in the case, but every offense. No identifying information is retained in the data files maintained by the Archive (i.e., the youth involved in each case is known only by an anonymous case file number, date of birth, sex, and race).

Researchers could work with the staff from the Data Archive to identify the best database with which to investigate the processing of juvenile court cases, and how the process is affected by the presence of firearms in each case.

The Archive contains several excellent databases containing thousands of case records from jurisdictions that could provide ample resources for studies of youth gun cases, including juvenile courts in Ohio, Wisconsin, Minnesota, and Illinois.

Survey Data

In addition to official data from law enforcement and the court system, a research program on youth gun violence could also employ data from the growing number of surveys that investigate youth gun possession and use.

Youth Risk Behavior Surveillance System. The Youth Risk Behavior Surveillance System (YRBSS) data are from a national survey of high school students conducted by the Centers for Disease Control (CDC). Surveys have been conducted in 1990, 1991, 1993, 1995, 1997, 1999, and 2001. Questions in the survey series focus on a wide range of risk behaviors, including whether respondents reported carrying a gun in the past 30 days (on as well as off of school property) or were threatened or injured with a gun on school property in the past year.

National Longitudinal Surveys. The National Longitudinal Survey of Youth (NLSY) asks a series of questions of youth over a three-year period and documents the transition into adulthood, including questions about criminal behavior and gun use. The 1997 survey cohort was a nationally representative group of 9,000 youth who were between ages 12 and 16 on December 31, 1996.

Monitoring the Future. Monitoring the Future (MTF) is a widely known survey of high school students that has been conducted by researchers at the University of Michigan since the 1970s. The survey collects data about the behaviors, attitudes and experiences of students in 8th, 10th and 12th grade. Each year, ap-

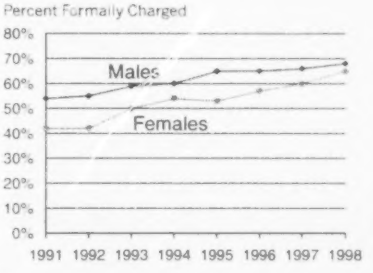
NIBRS analysis of the location of firearm violence for juveniles and young adult arrestees in South Carolina, 1996 and 1997

	Juveniles		Young Adults	
Location	Number	Percent	Number	Percent
Home	239	34%	813	36%
Highway/Roads	213	30	593	26
Department Store	36	5	16	1
Convenience Store	35	5	178	8
School (K-12)	25	4	12	1
Commercial Building	19	3	152	7
Parking Lot/Garage	17	2	69	3
Restaurant	15	2	84	4
Bar/Nightclub	8	1	82	4
Other	97	14	258	11
Totals	704	100%	2,257	100%

Note: Percentages may not add to 100% due to rounding.

Source: McManus, Rob (2001). *Juvenile and Young Adult Firearm Use in South Carolina*. South Carolina Department of Public Safety. On the Internet: www.scdps.org/ojp/Final%20-%209697.pdf.

Analyzing court data reveals changes in how the juvenile justice system treats youth charged with weapons violations



Cases in which a weapon offense was the primary charge. Data sources include juvenile courts in: AL, AK, AZ, CA, FL, MD, MS, MT, NV, NJ, ND, OH, PA, SD, TN, UT, VA, WA, and WV.

Source: National Juvenile Court Data Archive. National Center for Juvenile Justice. Pittsburgh, PA.

proximately 50,000 students are surveyed. Annual follow-up surveys are also sent to a cohort of each graduating class for several years after their initial participation in the study. A number of questions in the MTF surveys deal with youth risk behaviors, including the use of weapons and violence.

National Crime Victimization Survey. The U.S. Department of Justice commissions an annual survey of criminal victimization from a nationally representative sample of approximately 40,000 households. All household members over age 12 are asked about their experiences with crime in the past year – i.e., whether they had been robbed, assaulted, etc. The NCVS is the primary national data source about crimes not reported to the police. The survey asks respondents for detailed information about the nature and extent of violent crimes including rape, sexual assault, personal robbery, aggravated and simple assault, as well as household burglary, theft, and motor vehicle theft. It also asks for approximate age of the offender, and there are questions about the use of weapons in the crimes.

Arrestee Drug Abuse Monitoring System. The Arrestee Drug Abuse Monitoring System (ADAM) is a federally funded program that addresses the direct connection between drug use and crime. Samples of arrestees in cities across the country are interviewed and drug-tested immediately after arrest. The ADAM data provide valuable community based information about drug and alcohol abuse/dependency, drug treatment needs, drug markets and the effects of law enforcement practices on drug markets, crime, etc. (Taylor and Hunt 2001). Because ADAM's infrastructure has already been developed, it can provide a cheap and easy platform for many addendum topics, including the prevalence and use of firearms among arrestees. Data are collected quarterly from 35 sites and arrestees are randomly selected from each site.

While the ADAM program does not include juveniles in its current firearm addendum, it may be an area for future research opportunities. In fact, ADAM has already begun building a knowledge base for information about the access and use of firearms by juvenile arrestees. In 1995, ADAM and the Drug Use Forecasting (DUF) program launched a study to examine the extent of firearm ownership and possession among arrestees. Interviews were administered to 7,000 arrestees in 11 cities: Atlanta, Denver, Detroit, Indianapolis, Los Angeles, Miami, New Orleans, Phoenix, St. Louis, San Diego, and Washington, DC. The findings confirmed the strong association between guns and youth. Gun ownership among juvenile male arrestees was much higher than among arrestees generally. The study also confirmed the link between guns and gang membership, and between guns and drug markets.

Other Survey Data. In addition to major, national surveys, researchers investigating youth and gun issues have produced smaller data sets that are available for secondary analyses. For example, a 1996 national survey of male 10th and 11th graders from 53 high schools nationwide provided one of the most recent and accurate estimates of firearm activity among youth (Sheley and Wright 1998). The study limited data collection to males, youth in 10th and 11th grade, and youth enrolled in school. Thus, it is unclear whether the results are generalizable. Results from the study, however, indicate that, among the youth population:

- 29 percent had possessed a firearm;
- 6 percent had carried guns outside the home;
- gun carrying was more prevalent in rural communities; and
- 50 percent of all youth believed that they could obtain a gun easily.

Other surveys could be helpful as well, such as the Rochester Youth Development Study, a longitudinal study of youth in Rochester, New York. The federally funded data series provides insight into the links between gun ownership and gun-related crime. Analysis of these data show that youth who own guns to protect themselves are much more likely to commit gun crimes compared with youth who do not own guns or who own guns for sport (Lizotte and Sheppard 2001).

Firearm Injury and Tracing Data

Juvenile Injury and Death. Researchers can also use data about injuries and deaths due to firearms. Unfortunately, there is no single data source that provides complete and accurate information about the extent of firearm-related injuries among juveniles or adults. The National Crime Victimization Survey (NCVS) does not capture firearm/crime-related deaths, and it captures too few cases of gunshot wounds for annual estimates. Similarly, hospital records typically do not record information on the 20 percent of gunshot victims who do not seek help.

Despite these limitations, however, combining the two data sources allows researchers to derive reasonably defensible estimates of fatal and non-fatal gunshot cases. For example, Zawitz and Strom (2000) recently used hospital records and information from the NCVS to determine that more than half of all victims of fatal and non-fatal gunshot wounds were age 24 or younger. In approximately one-fourth of all cases involving fatal and non-fatal gunshot wounds, the victim was a black male

between the ages of 15 and 24 (Zawitz and Strom 2000).

Firearm Tracing. Finally, another major source of data for researchers studying youth and guns is the crime gun tracing data produced by the Bureau of Alcohol, Tobacco and Firearms (ATF) within the U.S. Department of the Treasury.

The ATF has been tracing guns used in crime and categorizing them by age of offenders since 1996. The data provide details on gun traces in 32 of the 79 cities in the U.S. with populations of at least 250,000, including several key cities in the Midwest: Milwaukee, Minneapolis, Gary, Chicago, Detroit, Cincinnati, and Cleveland.

The information collected about each gun may include the age of the possessor, when the crime gun was purchased, the type of firearm, its caliber, manufacturer, and model, as well as time-to-crime information where available. "Time-to-crime" measures the time lag between last sale of the gun and when it was used in the commission of a crime.

Highlights from the 1999 National Crime Gun Trace Reports:

- More than 90 percent of crime guns are recovered from adults, age 18 and older.
- About 34 percent of crime guns are recovered from youth, ages 18 to 24, while 9 percent are recovered from juveniles under the age of 18.
- Semi-automatic pistols are more commonly recovered from juveniles (57%) and youth (60%) than from adults (47%).
- The top handgun for juveniles, youth and adults is the Lorcin Engineering L380 semiautomatic pistol, .380 caliber.
- The median time-to-crime for crime guns possessed by youth is 4.8 years, which is shorter than for either juvenile gun possessors (6.3 years) or adults (5.6 years).

The ATF data include 36 separate city reports. The findings include information about several mid-western cities:

- Both Milwaukee and Chicago attributed a higher than average percent of their gun traces to juveniles (12% and 15%, respectively, vs. 9% across all cities).
- In Detroit, youth were frequently involved (8%) with handguns that had obliterated serial numbers.
- Fifty-one percent of crime guns in Gary, Indiana had a time-to-crime of less than three years, compared to an average of 32% for the other cities who participated.

CONCLUSION

This report documents recent trends in youth gun violence and the response to youth gun violence within the justice system, and it documents the growing variety of data resources available to investigate the effect of new gun laws on youth, communities, and public safety.

A new research agenda on youth and guns should look beyond the individual and community effects of gun violence to investigate the effects of recent law and policy changes. Such an agenda could examine the consequences of these changes and answer a number of important questions, including:

- What effect have new get-tough policies had on the rate of youth gun violence in the United States?
- What effect have such policies had on the juvenile justice system itself?
- What features of the traditional juvenile court are lawmakers sacrificing in their efforts to control gun violence, and what is the impact of these actions?

As a first step in this research agenda, and with funding from the Joyce Foundation, the Urban Institute prepared this overview of policy issues related to youth gun violence and the informational resources available for future research. The report is designed to inform and shape discussions about these issues and to aid in the development of future research efforts.

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